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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,519	08/29/2001	William R. Wheeler	10559-605001 / P12889	6850

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EXAMINER

THOMPSON, ANNETTE M

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,519

Applicant(s)

WHEELER ET AL.

Examiner

A. M. Thompson

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This application, 09/941,519, has been examined. Claims 1-38 are pending.

Claim Objections

1. Claims 4, 21 and 35 are objected to because of the following informalities: Pursuant to claim 4, line 4 and claim 21, line 5, the phrase "the same" should be changed to specifically point out what Applicants are referencing. Pursuant to claim 35, at line 3, change "processor" to *computer* to provide correct antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Rejection of Claims 1, 5, 6, 9-14, 18, 22, 23, 26-31

3. **Claims 1, 5, 6, 9-14, 18, 22, 23, 26-31** are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka et al. ("Tanaka"), Pub. No. US 2001/0018758, filed February 27, 2001.

4. Pursuant to claim 1 which recites [a] method of designing a semiconductor device (page 1, ¶ 2) , the method comprising maintaining a circuit design parameter file

(the library, page 1, ¶ 3; page 1, ¶ 12) for a circuit being designed, the circuit design parameter file specifying a physical characteristic of the circuit (page 1, ¶¶ 7, 12; see also Figs. 3a and 3b));

monitoring a design environment to detect the addition of a circuitry component to the circuit (page 4, ¶ 47 which discloses the detection of a “newly generated” cell);

accessing a component design parameter file that specifies at least one design parameter for that added circuitry component (page 4, ¶ 48); and

updating the circuit design parameter file based on the at least one design parameter included in the component design parameter file (page 4, ¶ 49; see also S42).

5. Pursuant to claim 5, wherein the physical characteristic (¶ 40 uses the term performance characteristic for parameters such as area, delay and power dissipation) is the total silicon area required to construct the circuit being designed (page 3, ¶¶ 36, 37; see also Fig. 1), and the at least one design parameter is the silicon area required to construct the added circuitry component (page 1, ¶ 8).

6. Pursuant to claim 6 wherein updating the circuit design parameter file includes recalculating the total silicon area (page 3, ¶ 39) required to construct the circuit being designed so that it includes the silicon area required to construct the added circuitry component (page 3, ¶40).

7. Pursuant to claim 9 wherein the physical characteristic is the total number of transistors required to construct the circuit being designed, and the at least one design parameter is the number of transistors required to construct the added circuitry component: Fig. 6, #33b; page 4, ¶¶ 55, 56; page 5, ¶¶ 66, 67.

8. Pursuant to claim 10, wherein updating the circuit design parameter file includes recalculating the total number of transistors required to construct the circuit being designed so that it includes the number of transistors required to construct the added circuitry component: : Fig. 6, #33b; page 4, ¶¶ 55, 56; page 5, ¶¶ 66, 67.

9. Pursuant to claim 11, wherein the physical characteristic is the total number of cells required to construct the circuit designed, and the at least one design parameter is the number of cells required to construct the added circuitry component: page 3, ¶37.

10. Pursuant to claim 12, wherein said updating the circuit design parameter file includes recalculating the total number of cells required to construct the circuit being designed so that it includes the number of cells required to construct the added circuitry component: page 6, ¶82.

11. Pursuant to claim 13, wherein the physical characteristic is the total amount of power required to power the circuit being designed and the at least one design parameter is the amount of power required to power the added circuitry component: page 4, ¶¶ 48, 50, 52, 53.

12. Pursuant to claim 14, wherein said updating the circuit design parameter file includes recalculating the total amount of power required to power the circuit being designed so that it includes the amount of power required to power the added circuitry component: page 4, ¶¶ 54-56.

13. Pursuant to claim 18, it recites the limitations already rejected in claim 1, and is likewise rejected for the reasons stated, supra.

14. Pursuant to claim 22, it recites the limitations already rejected in claim 5, and is likewise rejected for the reasons stated, supra.

15. Pursuant to claim 23, it recites the limitations already rejected in claim 6, and is likewise rejected for the reasons stated, supra.

16. Pursuant to claim 26, it recites the limitations already rejected in claim 9, and is likewise rejected for the reasons stated, supra.

17. Pursuant to claim 27, it recites the limitations already rejected in claim 10, and is likewise rejected for the reasons stated, supra.

18. Pursuant to claim 28, it recites the limitations already rejected in claim 11, and is likewise rejected for the reasons stated, supra.

19. Pursuant to claim 29, it recites the limitations already rejected in claim 12, and is likewise rejected for the reasons stated, supra.

20. Pursuant to claim 30, it recites the limitations already rejected in claim 13, and is likewise rejected for the reasons stated, supra.

21. Pursuant to claim 31, it recites the limitations already rejected in claim 14, and is likewise rejected for the reasons stated, supra.

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Rejection of Claims 1-4, 7, 8, 15-21, 24, 25, 32-38


23. **Claims 1-4, 7, 8, 15-21, 24, 25, 32-38** are rejected under 35 U.S.C. 102(b) as being anticipated by Watkins, U.S. Patent 5,666,289. Watkins discloses a system for designing an integrated circuit with multiple functions.

24. Pursuant to claim 1 which recites [a] method of designing a semiconductor device (see Abstract), the method comprising maintaining a circuit design parameter file (col. 6, line 54 to col. 7, line 3, the .Lib and .TechLib files) for a circuit being designed, the circuit design parameter file specifying a physical characteristic of the circuit (col. 7, ll. 4-21);

monitoring a design environment to detect the addition of a circuitry component to the circuit (col. 8, ll. 29-37);

accessing a component design parameter file that specifies at least one design parameter for that added circuitry component (col. 8, ll. 37-47); and

updating the circuit design parameter file based on the at least one design parameter included in the component design parameter file (col. 8, ll. 37-47).

 Pursuant to claim 2, further comprising providing the circuit designer with feedback concerning the physical characteristic of the circuit being designed: col. 5, ll. 54-63.

26. Pursuant to claim 3, wherein the circuit designer is allowed to request feedback concerning the physical characteristic of the circuit being designed: col. 5, ll. 46-53.

27. Pursuant to claim 4, wherein the circuit designer is provided with feedback concerning the physical characteristic of the circuit being designed in response to a circuit designer request: col. 5, ll. 47-53.

28. Pursuant to claim 7 wherein the physical characteristic is the total number of gates required to construct the circuit being designed, and the at least one design parameter is the number of gates required to construct the added circuitry component: col. 7, ll. 4-21.

29. Pursuant to claim 8, wherein updating the circuit design parameter file includes recalculating the total number of gates required to construct the circuit designed so that it includes the number of gates required to construct the added circuitry component: col. 7, ll. 4-21.

30. Pursuant to claim 15 which further comprises monitoring a design environment to detect the deletion of a circuitry component from the circuit being designed: col. 7, line 61 to col. 8, line 3.

31. Pursuant to claim 16, which further comprising accessing a design parameter file that specifies at least one design parameter for that deleted circuitry component: col. 7, line 61 to col. 8, line 3, wherein .DELCEL and XDELCEL are the design parameter files.

32. Pursuant to claim 17 which further comprises updating the circuit design parameter file based on the at least one design parameter included in the component design parameter file for that deleted circuitry component: col. 8, ll. 29-47.

33. Pursuant to claim 18, it recites the limitations already rejected in claim 1 and is likewise rejected for the reasons stated, supra.

34. Pursuant to claim 19, it recites the limitations already rejected in claim 2, and is likewise rejected for the reasons stated, supra.

35. Pursuant to claim 20, it recites the limitations already rejected in claim 3, and is likewise rejected for the reasons stated, supra.

36. Pursuant to claim 21, it recites the limitations already rejected in claim 4, and is likewise rejected for the reasons stated, supra.

37. Pursuant to claim 24, it recites the limitations already rejected in claim 7, and is likewise rejected for the reasons stated, supra.

38. Pursuant to claim 25, it recites the limitations already rejected in claim 8, and is likewise rejected for the reasons stated, supra.

39. Pursuant to claim 32, it recites the limitations already rejected in claim 15, and is likewise rejected for the reasons stated, supra.

40. Pursuant to claim 33, it recites the limitations already rejected in claim 16, and is likewise rejected for the reasons stated, supra.

41. Pursuant to claim 34, it recites the limitations already rejected in claim 17, and is likewise rejected for the reasons stated, supra.

42. Pursuant to claim 35, it recites the limitations already rejected in claim 1 and further incorporates the limitation of "[a] computer program product residing on a computer readable medium having a plurality of instructions to be executed by a processor". This additional limitation is also disclosed by Watkins '289 at col. 4, ll. 60-67. Therefore, claim 35 is likewise rejected.

43. Pursuant to claim 36, wherein said computer readable medium is a hard disk drive: see Fig. 1, #16; col. 4, ll. 48-52; see also Fig. 5.

44. Pursuant to claim 37, it recites the limitations already rejected in claim 1 and further incorporates the limitation of a configured processor and memory. This additional limitation is also anticipated by Watkins '289 at col. 4, ll. 46-55; see also Fig. 5. Therefore claim 37 is likewise rejected.

45. Pursuant to claim 38, wherein said processor and memory are incorporated into a personal computer: col. 4, ll. 60-67; col. 5, ll. 1-5; see also Fig. 6.

Conclusion

46. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to the PTO-892 for a complete listing.

47. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to A.M. Thompson whose telephone number is (703) 305-7441. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 5:00 p.m.. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew S. Smith, can be reached on (703) 308-1323.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956 or the Customer Service Center whose telephone number is (703) 306-3329.

48. Responses to this action should be mailed to:

Commissioner of Patents and Trademarks


Washington, D.C. 20231

Art Unit: 2825

or faxed to:

(703) 872-9318, (for **OFFICIAL** communications intended for entry)
(703)872-9319, (for Official **AFTER-FINAL** communications)

Hand-delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).



A.M. THOMPSON
Technology Center 2800
June 11, 2002